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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/310,256	05/12/1999	SHENG-CHI CHIN	TSMC98-574	8566

7590 02/19/2002

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EXAMINER

AHMED, SHAMIM

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 02/19/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/310,256

Applicant(s)

CHIN ET AL.

Examiner

Shamim Ahmed

Art Unit

1746

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 29 October 2001 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY [check either a) or b)]**

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1-22.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

Continuation of 2. NOTE: Applicants argue that Blanchard et al differs from the instant application on the ground that Blanchard et al teach a method for reducing foreign matter deposited on a substrate during reactive ion etching, whereas, the instant application disclose a method of reducing dry-etch chamber particle count at the end of power-down for a dry-etch chamber. This is not persuasive because Blanchard et al disclose a process for reducing foreign particles on a substrate to be processed, wherein the power is down to zero in such a manner that particle count is reduced at the end of the power-down process. Blanchard et al, further disclose that the power down procedure starts after the etching process (col.5, lines 54-col.6, lines 2). So, Blanchard et al inherently teach that the particle count is reduced in the dry-etch chamber because the substrate is positioned in the chamber.

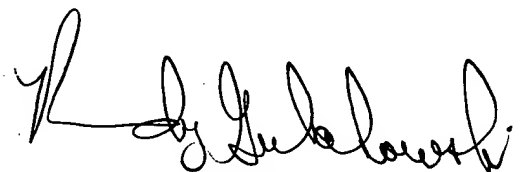
Examiner also states that foreign particles will deposit on both the substrate and the dry-etch chamber during RIE process. Since the power-down procedure starts after the etching process. As a result, the foreign particles are reduced on the surface on the substrate and at the same time the dry-etch chamber also have reduced foreign particle count because the substrate is processed on the chamber. Applicants also argue that Blanchard et al do not teach the power-down is performed in a controlled and gradual manner, which is not persuasive because Blanchard et al teach that the reduction of the power is performed in a controlled and gradual manner (col.5, lines 64-col.6, lines 2). Blanchard et al also teach that the particles count reduces at the end of the power-down procedure (col.6, lines 32-40).

In conclusion, examiner states that Blanchard et al disclose a similar process to reduce particle count on the surface of a substrate as well as the dry-etch chamber using a power-down procedure in such a manner that the power or the voltage is gradually reduced to a minimum value, wherein the power-down procedure is a subsequent process of the RIE processing (see claims 1-4).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shamim Ahmed whose telephone number is (703) 305-1929. The examiner can normally be reached on M-F (7:00-5:30) Every Friday Off. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (703) 308-4333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Shamim AhmedExaminerArt Unit 1746

SA  
February 13, 2002



RANDY GULAKOWSKI  
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